

Development of a Petroliferous Area

SOV/2157

|   |     |
|---|-----|
| Methods of Increasing the Output of a Producing Well and the Receiving Capacity of an Input Well                        | 121 |
| Hydraulic fracturing of a formation   | 121 |
| Economic practicability of hydraulic fracturing   | 140 |
| Injection of sand into the deposit as a measure against plug formation  | 141 |
| Hydrochloric acid treatment of wells at oilfields of the Azerbaydzhan SSR   | 142 |
| Chemical method for reinforcing the bottom-hole zone of a plug forming well (treatment of wells with plastic materials) | 147 |

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TM/ad  
8-20-59

Card 5/5

14/5

SOV/9-59-2-5/16

AUTHOR: Iskenderov, M.A.

TITLE: Some Problems of Planning Oil and Gas Field Development  
(Nekotoryye voprosy sostavleniya proyekta razrabotki  
neftyanykh i gazovykh mestorozhdeniy)

PERIODICAL: Geologiya nefti i gaza, 1959, <sup>3</sup>Nr 2, pp 22-27 (USSR)

ABSTRACT:

The author discusses some problems in planning gas and oil field development, the solution of which is most difficult due to insufficient data obtained from drilling. For drilling and opening of the stratum the author recommends two stage planning, by establishing a preliminary plan which makes the immediate exploitation and further examination of the stratum possible and then setting-up the final exploitation plan. For control of pressure in the oil stratum the author suggests hydraulic break or inundation methods. The interdependence of the well and the stratum is discussed and it is stated that the stratum is a single hydrodynamic system, and that pressure on any spot spreads over the whole system. The distance between the wells must be determined after the complete examination of the stratum. With reference to the development of the

Card 1/2

SOV/9-59-2-5/16

Some Problems of Planning Oil and Gas Field Development

Karadag gas-condensate stratum, the author recommends pumping of dry gas in order to prevent the falling-out of the condensate in the stratum.

ASSOCIATION: Institut geologii AN Azerb. SSR (Institute of Geology of the Azerbaijan SSR Academy of Sciences)

Card 2/2

ISKENDEROV, M.

Latent sources of greater labor productivity in industries of the  
Azerbaijan S.S.R. Sots.trud 4 no.5:33-37 My '59.  
(MIRA 12:8)

1. Sekretar' Tsentral'nogo komiteta Kommunisticheskoy partii Azerbayd-  
zhana.  
(Azerbaijan—Economic conditions) (Labor productivity)

ISKENDEROV, M.

Urgent objective of the scientific and technical world. NTO  
no.7:5-7 Jy '59. (MIRA 12:11)

1. Sekretar' Tsentral'nogo komiteta Kompartii Azerbaydzhana.  
(Research, Industrial)

MEKHTIYEV, Shafayat Farkhad ogly; MIRZADZHANZADE, Azad Khalil ogly;  
ALTIYEV, Sabir Agakishi ogly; BAGBANLY, Edkhem Abdulla ogly;  
MOTYAKOV, Vladimir Ivanovich, Prinimal uchastiye ISKENDEROV,  
MA.; LITVINOV, S.Ya., red.; SHTEYNGEL', A.S., red. izd-va.

[Thermal conditions of oil and gas fields] Teplovoi rezhim ne-  
ftiannykh i gazovykh mestorozhdenii. By Sh.F.Mekhtiev i dr. Baku,  
Azerbaidzhanskoe gos. izd-vo neft. i nauchno-tekhn. lit-ry, 1960.  
383 p. (MIRA 14:11)

(Azerbaijan--Petroleum geology)  
(Azerbaijan--Gas, Natural--Geology)

ISKENDEROV, M.A.

Problems in the planning of the development of gas-condensate  
deposits. Sov. geol. 3 no. 9:17-25 S '60. (MIRA 13:11)

1. Sovet Ministrov ~~As~~SSR.  
(Condensate oil wells)

ISKENDEROV, M.A.

In the republic of black and white gold. Zdorov'e 6 no.12:4-5 D '60.  
(MIRA 13:12)

1. Predsedatel' Soveta Ministrov AzerSSR., Baku.  
(AZERBAIJAN—PETROLEUM INDUSTRY—HYGIENIC ASPECTS)  
(AZERBAIJAN—COTTON GROWING—HYGIENIC ASPECTS)



34983  
S/190/62/004/003/003/023  
B110/B144

15.8110  
AUTHORS:

Korshak, V. V., Vinogradova, S. V., Iskenderov, M. A.

TITLE:

Heterochain polyesters. XXXIV. Polyesters of aromatic dioxo condensed-ring compounds

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 3, 1962, 345-350

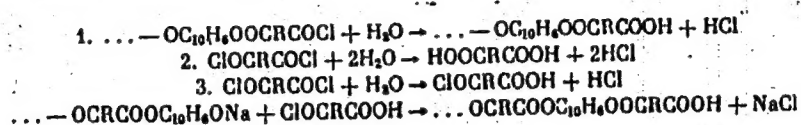
TEXT: Polyarylates were obtained on the base of isomeric diols of the naphthalene, anthracene, and phenanthrene series using interface poly-concentration. The effect of the feeding rate of initial compound solutions, of their concentration and ratio, and of the reaction temperature on yield and molecular weight of polyarylates of 1,6-dioxo naphthalene (I) and dicarboxylic acids (adipic (II), sebacic, and isophthalic (III) acid) was investigated. Best results were achieved by the addition of acid chloride solution to an aqueous alkali solution of I for 11-14 min. The highest polymer yield and viscosity were obtained at 0.10 N concentration of the initial solutions. 20°C was ideal for the interface condensation of 1,6-dioxo naphthalene with II, III, and sebacic acid. If one of the phases is aqueous, various competing reactions may, in polyesterification,

Card 1/3

S/190/62/004/003/003/023  
B110/B144

Heterochain polyesters...

take place at the interface. Some of them produce a polyester, while others prevent it from forming as, e.g., chain rupture due to hydrolysis of the acid chloride groups and of the initial dicarboxylic acid chloride:



The decrease in viscosity and yield of the polyarylates of I with an increase of the reaction temperature from 20 to 40°C is effected by the increase of the rate of these reactions in the polycondensation process at higher temperatures, while the decrease in viscosity and yield at low temperatures is effected by a drop in the rate of the polymer-forming reaction. Yield and viscosity of polyarylates depend on the different hydrolyzing capacities of the acid chlorides. A 0.2-mole excess of dicarboxylic acid chloride, required as compensation for the acid chloride lost through hydrolysis, provided maximum viscosity (0.22 in polyarylates of III, and 0.16 in those of II) and yield (84 % in III and 35 % in II). Excess of

Card 2/3

Heterochain polyesters...

S/190/62/004/003/003/023  
B110/B144

I or of acid chloride ( $> 0.2$  mole) leads to chain rupture by the formation of phenolate or acid chloride groups at the chain terminals. The best NaOH amount is 0.1 mole excess in III and 0.2 mole excess in II. The amount of reactive phenolate of I drops with NaOH deficiency, as I does not react spontaneously. NaOH excess causes the initial acid chloride and the polymer chain to hydrolyze. There are 4 figures, 2 tables, and 16 references: 10 Soviet and 6 non-Soviet. The two references to English-language publications read as follows: A. Conix, Industr. and Engng. Chem., 51, 147, 1959; I. A. Ambler, I. T. Seanlan, Industr. and Engng. Chem., 19, 417, 1927.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR  
(Institute of Elemental Organic Compounds AS USSR)

SUBMITTED: February 9, 1961

Card 3/3

37428

S/190/62/004/005/002/026  
B119/B101

15.8110

AUTHORS: Iskenderov, M. A., Korshak, V. V., Vinogradova, S. V.  
TITLE: Heterochain polyesters. XXXV. Polyarylates on the basis  
of 1,6-dihydroxy naphthalene  
PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 5, 1962,  
637 - 641

TEXT: The authors studied the effects of several factors on the yield and on the reduced viscosity of polyarylates prepared by interfacial condensation of 1,6-dihydroxy naphthalene with adipic, sebacic, isophthalic, or terephthalic acid chlorides: (1) of emulsifiers (alkamone A (D), sodium oleate, mersolate, Novost', OP-20 (OP-20), Nekal, wetting agent HB (NB), Trilon B, "Kontakt Petrova" and of their concentrations. (0.25 - 2.50%)); (2) of solvents for the acid chloride (benzene, toluene, o-, m-, p-xylene, Tetralin, chloroform, carbon tetrachloride, dichloro ethane, ditolyl methane, n-hexane), of catalysts (triethyl amine, dimethyl aniline, tetraethyl ammonium bromide, zinc chloride, lead oxide, zinc

Card 1/2

Heterochain polyesters...

S/190/62/004/005/002/026  
B119/B101

acetate) and of their concentrations (0.5 - 3.5%); (3) of the concentrations of the acid chloride solution (0.1 - 1 N). The highest yields (61 - 89%) and values of reduced viscosity (0.20 - 0.32) were obtained by using 1% by weight of emulsifiers with respect to the aqueous phase (OP - 20 for the polyarylates of aliphatic acids and sodium oleate for the polyarylates of isophthalic acid), n-hexane as a solvent, and 2 % tetraethyl ammonium bromide and triethyl amine as catalysts. There are 6 tables. X

ASSOCIATION: Institut elementoorganicheskikh soedineniy AN SSSR  
(Institute of Elemental Organic Compounds of the AS USSR)

SUBMITTED: February 9, 1961

Card 2/2

L 19855-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM.

ACCESSION NR: AR4048159

S/0081/64/000/011/S036/S037

SOURCE: Ref. zh. Khimiya, Abs. 118218

AUTHOR: Iskenderov, M.A.

TITLE: Polyarylates of polycyclic aromatic compounds

CITED SOURCE: Uch. zap. Azerb. un-t. Ser. khim. n., no. 2, 1963, 41-49

TOPIC TAGS: aromatic polyester, polyarylate, polycyclic hydrocarbon, dicarboxylic acid, dihydroxynaphthalene, interphase polycondensation, polyester physical property

TRANSLATION: A series of polyarylates derived from the chloroanhydrides of adipic (I), sebacic (II), isophthalic (III) and terephthalic (IV) acid and of the isomeric 1,2-, 1,3-, 1,4-, 1,5-, 1,6-, 1,7-, 1,8-, 2,3-, 2,6- and 2,7-dihydroxynaphthalenes were obtained by the method of interphase polycondensation. The reaction was carried out by a method described previously (see RZhKhim, 1964, 48:172). The synthesized polyarylates were colored powders with  $\eta_{inh}$  0.15-0.28 (in tricresol). The yield of polyarylate depended on the hydrolizability of the chloroanhydride during the reaction in the aqueous phase: the lowest yield (2-3%) was obtained with the chloroanhydride of I, the largest (approximately 100%) with the chloroanhydrides of III and IV. The softening temperature and melting point

Card 1/2

L 19855-65

ACCESSION NR: AR4048159

(flow temperature) of the polyarylates decreased in the order IV > III > I > II. The polyarylates of the aliphatic acids are generally crystalline substances (on the basis of the x-ray diagrams, which are soluble in benzene, acetone and  $C_2H_2Cl_2$ ;  $C_2Cl_4$ ; the polyarylates of the aromatic acids are either crystalline or amorphous substances which are soluble only in chloroform. The infrared spectra of the polyarylates obtained are shown. Yu. S. Samoylov

SUB CODE: OC

ENCL: 00

Card 2/2

L 13517-63 EPF(c)/ENP(j)/EWT(m)/BDS ASD PF-L/PO-L RM/MAY/WW  
ACCESSION NR: AP3001146 S/0190/63/005/006/0799/0804 70  
68

AUTHOR: Iskenderov, M. A.; Korshak, V. V.; Vinogradova, S. V.; Kharlamov, V. V.

TITLE: Heterochain polyesters. 42. Mixed polyarylates based on dihydroxynaphthalenes

SOURCE: Vysokomolekulyarnyye soedineniya, v. 5, no. 6, 1963, 799-804

TOPIC TAGS: polyester, heterochain compound, polyarylate, dihydroxynaphthalene, dian

ABSTRACT: The synthesis of mixed polyarylates was accomplished by polycondensation of 10 isomers of dihydroxynaphthalene, dian, and the chlorides of terephthalic, isophthalic, adipic and sebacic acids in ditolylmethane, at temperatures ranging from 100 to 220C for periods of 1 to 12 hours. The polyarylates obtained on the basis of terephthalic acid were mostly of mixed crystalline-amorphous structure and had softening points from 500-130C, the highest belonging to the 1,3-isomer. Where isophthalic acid was the base, the softening point had a range of 400-25C, and it showed a still lower range of 190-5C with adipic acid, going still further down with sebacic acid, ranging from 35C to -18C. Thus it seems that increasing the number of methylene groups in the aliphatic dicarboxylic acids from 4 to 8 causes

Card 1/2



L 13517-63

ACCESSION NR: AP3001146

a marked drop in the softening-point temperature, which was also found to be accompanied by a higher solubility and a lower crystallizability of these polymers. Thanks are given to the co-workers of the laboratory of the Institute of the Elementoorganic Compounds, of the Academy of Sciences SSSR, headed by A. I. Kitaygorodskiy, for conducting the x-ray structural investigation of the polymers. Orig. art. has: 5 tables.

ASSOCIATION: Institut elementoorganicheskikh soedineniy AN SSSR (Institute of Elementoorganic Compounds, Academy of Sciences SSSR)

SUBMITTED: 01Nov61

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 005

OTHER: 000

Card 2/2

ACCESSION NR: ARS011414

UR/0081/65/000/006/S042/3042

SOURCE: Ref. zh. Khimiy-, Abs. 68271

AUTHOR: Iskenderov, M. A.

TITLE: Blended polyarylates of isomeric dioxynaphthalenes of equilibrium condensation polymerization

CITED SOURCE: Uch. zap. Azerb. un-t. Ser. khim. n., no. 1, 1964, 25-33

TOPIC TAGS: polymer chemistry, polyaryl plastic, polymer, polymerization

TRANSLATION: On the basis of isomeric dioxynaphthalenes, dian, and chlorides of dicarboxylic acid -- adipic, terephthalic, isophthalic, and sebacic acids -- at various ratios of the initial compositions, a synthesis of polyarylates was accomplished, using the method of equilibrium and interphase condensation. The polyarylates were determined by their melting points; solubility in  $C_6H_6$ ,  $CH_2ClCH_2Cl$ , and  $CHCl_3$ ; their crystallinity (x-ray method); IR-spectrum, and their elemental analysis. The effect of monomer structure on the properties of polymers was determined. Polyarylates of aliphatic acids have lower softening temperatures and lower solubilities as compared with polyarylates of aromatic acids. For ex-

Card 1/2

L 60855-65

ACCESSION NR: AR5011414

ample, a polyarylate based on 2,6-dioxynaphthalenes and adipic acid has a softening point of 200°C, while a polyarylate based on 2,6-dioxynaphthalenes and terephthalic acid has a softening point of 500°C. A similar phenomenon is observed when the length of the aliphatic chain in acids is shortened. The activity series of isomeric dioxynaphthalenes and chlorides of dicarboxylic acid in equilibrium condensation reaction was established. Polyarylates based on 2,6-dioxynaphthalenes have the highest softening temperature (450-540°C) and those based on 1,6-dioxynaphthalenes have the lowest (8-120°C), while polyarylates based on 2,6-dioxynaphthalene isomers and chlorides of terephthalic acid have the highest softening temperature (540°C). The polyarylates obtained with nonequimolar ratios of the initial components by the equilibrium and interphase condensation methods differ in their properties. Using adipic acid and 1,2-dioxynaphthalene isomers the polymer prepared by the interphase method has a softening temperature of 12 to 14°C, and the one made by the equilibrium method, 70-72°C. In the case of equimolar ratios, the polyarylate properties do not depend on the method of preparation. W. Nikolayenko.

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ENCLOSURE 00

L 51524-65 EWT(m)/EPF(c)/EPR/ENP(j)/T PC-4/Pr-4/Ps-4 HM/WW  
ACCESSION NR: AP5015298 UR/0286/65/000/009/0068/0068  
678.621'375

AUTHOR: Kamenskiy, I. V.; Sadykh-zade, S. I.; Guseynov, D. A.; Iskenderov, H. A.;  
Sultanov, R. A.; Mamedov, F. V.

TITLE: A method for producing resin. Class 39, No. 170670 <sup>15</sup>

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 68

TOPIC TAGS: resin, amine, thermal stability, polycondensation, furfural <sup>15</sup>

ABSTRACT: This Author's Certificate introduces a method for producing resin by polycondensation of furfural and amine. The thermal and chemical stability of the product are improved by using allylamine. <sup>15</sup>

ASSOCIATION: none

SUBMITTED: 21May64

ENCL: 00

SUB CODE: NI, GC

NO REF SOV: 000

OTHER: 000

*ls*  
Card 1/1

ISKENDEROV, M.A.

Concerning the article of S.T. Ovnatanov and K.A. Karapetov  
"Evaluation of certain factors affecting the volume of oil  
recovery." Neft. khoz. 43 no.6:42-45 Je '64.

(MIRA 18:7)

ACC NR: AR6032305 SOURCE CODE: UR/0081/66/000/013/S047/S047

AUTHOR: Iskenderov, M. A.; Plekhanova, K. I.; Adigezalova, N.

TITLE: Polyesters with a silicon heteroatom 1

SOURCE: Ref. zh. Khimiya, Part II, Abs. 13S281

REF SOURCE: Uch. Zap. Zerb. un-t. Ser. khim. n., no. 4, 1965, 71-78

TOPIC TAGS: polymerization, polymer, polyester, silicon polymer, film

ABSTRACT: The synthesis of polyesters containing a silicon atom in their molecular structure was carried out by the method of interphase condensation polymerization (polycondensation). Diethyldichlorosilane sodium salts of dicarboxylic acids (sebacid, adipic, terephthalic, isophthalic) or the sodium salt of dihydroxynaphthalene were used as initial substances. Solutions of 21 grams of sodium terephthalate in 100 ml of distilled water and 15.7 g of diethyldichlorosilane in 100 ml benzene were used. The reaction took place at 20C for 7-15 minutes with mixing. A study was made on the physicochemical properties of polymers, i. e. the infrared spectrum, dielectrical properties, and the molecular weight were determined. The

Card 1/2

ACC NR: AR6032305

film-forming capacity of each polymer was analyzed. The polymer formed films<sup>15</sup> were found to be brittle. The solubility of the obtained polymers in various organic solvents was determined. [Translation of abstract]

SUB CODE: 07/

Card 2/2

11529  
S/233/62/000/004/001/001  
B104/B102

26.2532  
AUTHORS:

Efendiyev, G. A., Sultanov, F. S., and Iskenderov, R. N.

TITLE:

Thermo-emf of thin bismuth layers

PERIODICAL:

Izvestiya Akademii nauk Azerbaydzhanskoy SSR. Seriya  
fiziko-matematicheskikh i tekhnicheskikh nauk, no. 4, 1962,  
65 - 69

TEXT: In the studies of the Bi-Se and Bi-Te systems Bi was evaporated in vacuo and condensed onto chemically decontaminated glass plates ( $20 \cdot 90 \text{ mm}^2$ ,  $70^\circ\text{C}$ ). The layers were from 80 to 20000 Å thick. In the experimental arrangement (Fig. 1) the glass plate was laid onto two brass electrical heaters at different temperatures. The thermo-emf and the temperatures were measured by compensation methods using the two copper-constantan thermocouples  $T_1$  and  $T_2$  at an atmospheric pressure in films of continuously decreasing thicknesses. The contact pressure of the thermocouples could be varied by the two loads  $P_1$  and  $P_2$ . The thermocouples were 8 mm apart. The temperatures of the hot junctions were  $40 - 50^\circ\text{C}$ , and the temperature drop

Card 1/3



Thermo-emf of thin bismuth layers

S/233/62/000/004/001/001  
B104/B102

along the specimen 4 - 6°C. The measurements were carried out immediately after the specimens had been produced and after annealing at 100, 150 and 200°C for 15 - 60 min. The thermo-emf remained constant in thicknesses up to 0.2 to 0.15  $\mu$  and is equal to that of Bi in bulk. The thermo-emf decreases slowly between 1500 and 1000 Å, more rapidly if the thickness is further reduced. At thicknesses below 150 Å the thermo-emf remains constant. The thermo-emf changed from  $\alpha = -65 \mu\text{V}/\text{deg}$  for  $\sim 2000 - 20000$  Å to  $\alpha = -10 \mu\text{V}/\text{deg}$  for 80 Å. The results obtained prove that the thermo-emf of thin layers depends on the electron mean free path. There are 4 figures. X

Card 2/3

ISKENDEROV, Sh.A.

Solution of a mixed problem for a nonlinear parabolic equation  
using the method of **straight lines**. Trudy Inst. mat. i mekh. AN  
Azerb.SSR 1:137-152 '61. (MIRA 14:11)

(Boundary value problems)  
(Differential equations, Partial)

ISKENDEROV, S.G.

Chemical composition of perennial hybrid grain plants and their mixtures with legumes as related to the phase of development.

Sbor. trud. asp. i mol. nauch. sotr. VIR no.5:233-240 '64.

(MIRA 18:3)

KADIROV, N.B.; ISKENDEROV, T.A.

Formula for determining friction of piston rings against  
piston compressor cylinder walls. Izv.vys.ucheb.sav.; neft'  
i gas 2 no.9:123-130 '59. (MIRA 13:2)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova.  
(Piston rings) (Compressors)

KADIROV, N.B.; ISKENDEROV, T.A.; ROTMAN, I.O.

Experimental determination of gas escapes through piston ring  
leaks in compressors. Izv. vys. ucheb. zav.; neft' i gaz 3  
no.7:115-119 '60. (MIRA 15:5)

1. Azerbaydzhanskiy institut nefti i khimii imeni M. Azizbekova  
i Neftepromyslovoye upravleniye "Kirovneft'".  
(Compressors)

ISKENDEROV, T. R.

"Emphysematous carbuncle of lambs."

Veterinariya, Vol. 38, NO. 5, 1961

Iskenderov, T. R. - Head of Kirovobad Inter-Raion Veterinary Laboratory.

ISKENDERZADE, A.M.; KERIMZADE, A.S.; MAYDEL'MAN, N.M.; TIMOFEYEV, V.I.;  
ESIBYAN, E.M.

Automatic pipe welding under flux in the construction of foundations  
for offshore drilling stations. Azerb. neft. khoz. 36 no.12:39-40  
D '57. (MIRA 11:3)

(Pipe--Welding)

(Oil well drilling, Submarine--Equipment and supplies)

ISKENDER-ZADE, A.M.; AMETOV, M.Yu.; ASRIYAN, V.A.; ESIBYAN, E.M.; ISLAM-ZADE,  
A.Z.

Progressive welding and cutting methods used at the October  
Revolution Plant (Baku) for manufacturing oil-field stop gates.  
Azerb. neft. khoz. 37 no.5:44-46 My '58. (MIRA 11:8)  
(Oil fields—Equipment and supplies)



S/233/62/000/006/004/008  
E010/E420

AUTHORS: Iskender-Zade, Z.A., Akhundov, G.A.

TITLE: An investigation of lifetime and current-voltage characteristics of silicon diodes

PERIODICAL: Akademiya nauk Azerbaydzhanskoy SSR. Seriya fiziko-matematicheskikh i tekhnicheskikh nauk, no.6, 1962, 49-62.

TEXT: Silicon p-n junctions have deviations from the theory of ideal p-n junctions due to recombination processes of charge carriers. The present investigation studied recombination of carriers in plane silicon diodes manufactured by the known technique, as well as the effect of the latter on diode characteristics. The method employed for the measurements of lifetime of unbalanced carriers was that of transition characteristics of a p-n junction. The method is based on measuring time  $t$  for which the reverse current obtained by switching over a diode remains constant and by using the following formula

$$\operatorname{erf} \sqrt{\frac{t}{\tau}} = \frac{1}{1 + I_{dir}/I_{rev}}$$

Card 1/4

(1)

An investigation of lifetime ...

S/233/62/000/006/004/008  
E010/E420

where  $I_{dir}$  and  $I_{rev}$  are values of direct and reverse currents respectively. The measurements were conducted at the ratio  $I_{rev}/I_{dir} = 0.5$ ; then  $\tau = t/0.47$ . Another method used for measuring  $\tau$  was by determining the decrease of post-injection emf at the p-n junction. The dependence of  $\tau$ , measured by both these methods, on duration of injection pulse was checked and represented by 6 curves (different measurements) in Fig. 4. The temperature dependence of  $\tau$  was determined from

$$\tau = \frac{\tau_{p0}}{n_0} \frac{2}{h^3} (2\pi m_0 k)^{3/2} T^{3/2} e^{-\frac{\Delta E_t}{kT}}, \quad (4)$$

where  $\tau_{p0}$  is lifetime of holes injected into specimens of n-type,  $v$  is thermal velocity of holes,  $\sigma_p$  the trapping cross section for holes by recombination centers and  $n_0$  is equilibrium concentration of majority carriers. This formula leads to the value of activation energy  $\Delta E_t = 0.24$  eV. The dependence of  $\tau$  on the value of injection level was found to obey the Shockley theory which predicts a linear relationship, from the slope of which can be obtained the value of  $\tau_{\infty}$  and by extrapolation to Card 2/4

An investigation of lifetime ...

S/233/62/000/006/004/008  
E010/E420

zero-level  $\tau_0$ . It was found that  $\tau_0$  is independent of temperature for all diodes investigated. The current-voltage characteristic of the p-n junction, with allowance for recombination in a space-charge layer, is expressed by

$$I = I_0 \left( e^{\frac{qU}{\beta kT}} - 1 \right) \quad (17)$$

It was found that the value of the exponent factor  $\beta$  was confined in the limits  $1 \leq \beta \leq 2$  for all diodes investigated in the temperature range 75 to 140°C. The current-voltage characteristic yields the value of activation energy  $\Delta E = 0.57 \pm 0.04$  eV which coincides with the half-width of the silicon forbidden band. Capacitance measurements, carried out by the bridge method at audio frequencies and different temperatures, yielded the values of concentration of recombination centers  $N_t \approx 4.7 \times 10^{12} \text{ cm}^{-3}$  and that of ionized impurities  $\approx 4 \times 10^{13} \text{ cm}^{-3}$ . Then the effective cross section of center trapping  $\sigma$  can be determined by

Card 3/4

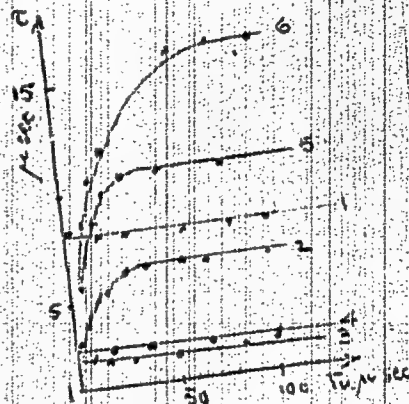
(11)

S/233/62/000/006/004/008  
E010/E420

An investigation of lifetime ...

which leads to the value  $\sigma \sim 10^{-16} \text{ cm}^2$ , which agrees with literature data. There are 12 figures and 6 tables.

Fig. 4. Dependence of measured time  $\tau$  on the time of injection pulse.



Card 4/4

ABDULLAYEV, G.B.; ISKENDER-ZADE, Z.A.; DZHAFAROVA, E.A.

Capacitive and inductive properties of silicon diffusion diodes. Izv.  
AN Azerb.SSR.Ser.fiz.-tekh.i mat. nauk no.3:81-88 '64. (MIRA 17:12)

I. 59487-65 EWA(h)/EWT(1)/EWT(m)/EWP(b)/T/EWP(t) Pr-6/Peb IJP(c) AT/JD 36  
 ACCESSION NR: AP5011793 UR/0249/65/021/001/0014/0018 25

AUTHORS: Iskender-zade, Z. A.; Abdullayev, G. B.; Dzhafarova, E.  
 A.; Badalov, A. Z.

TITLE: Investigation of the transient characteristics of the re-  
 covery of the inverse resistance in silicon pn junctions

SOURCE: AN AzerbSSR. Doklady, v. 21, no. 1, 1965, 14-18

TOPIC TAGS: silicon diode, pn junction, transient characteristic,  
 inverse resistance, recovery time

ABSTRACT: The authors investigated the effect of reversal of the bias  
 polarity on pn junctions obtained by diffusion of aluminum in n-Si  
 with resistivity 20 ohm-cm. The pulses were applied to the investi-  
 gated diode from a square-wave generator, and the inverse bias was  
 applied from a rectifier. The ratio of the areas under oscillograms  
 of the forward and backward current is shown to be a measure of the  
 recovery of the inverse resistance of the diode. The experimental  
 results are in satisfactory agreement with theoretical papers by

Card 1/2

L 59487-65

ACCESSION NR: AP5011793

others. The connection between these results and the lifetimes of the carriers in various parts of the diode and the pulse duration is discussed. It is shown that if ratio of the pulse duration to the base lifetime is small, the transient characteristics obtained make it possible to determine the injection coefficient of the pn junction, while in the case when this ratio is large, they make it possible to determine the lifetime of the minority carriers in the diode base. Original article has: 3 figures, 1 formula, and 1 table

ASSOCIATION: Institut fiziki AN AzerbSSR (Institute of Physics, AN AzerbSSR)

SUBMITTED: 09May64

ENCL: 00

SUB CODE: SS, EM

NR REF SOV: 006

OTHER: 003

Card

2/2

L 49810-65 EWT(1)/T/EWA(h) Pz-6/Peb IJP(c) AT  
 ACCESSION NR. AP5010117 UR/0109/65/010/004/0076/0078 21

AUTHOR: Abdullayev, G. B.; Iskenderzade, Z. A.; Dzhabarova, E. A.

TITLE: Reactive properties of silicon diffusion p-n junctions 21

SOURCE: Radiotekhnika i elektronika, v. 10, no. 4, 1965, 776-778

TOPIC TAGS: semiconductor, pn junction

ABSTRACT: The results are reported of an experimental investigation of the reactance inversion (transition from capacitance to inductance) in diffusion-type p-n junctions prepared from n-Si having a resistivity of 0.4, 20, and 60 ohm-cm. Experiments were carried out with 15-20 specimens at 0.4-800 kc and 0.1-0.5 v. The reactance inversion — when the capacitive reactance is equal to the inductive reactance — occurs at 0.42, 0.54, and 0.4 v, respectively, for the specimens having a resistivity of 0.4, 20, and 60 ohm-cm. It was also discovered that the frequency of the signal. The authors are V. M. Iskhodzhi, and V. Ye. Chelnokov for discussing the results of the experiment. Orig. art. has: 3 figures and 1 formula

Card 1/2



L 49810-55

ACCESSION NR: AP5010117

ASSOCIATION: Institut fizika AN AzerbSSR (Institute of Physics, AN AzerbSSR)

SUBMITTED: 13 Apr 64

ENCL: 00

SUB CODE: EC

NO REF SOV: 003

OTHER: 003

112  
Card 2/2

ISKENDERZADE, Z.A.; ABDULLAYEV, G.B.; AKHUNDOV, G.A.

Some results of electrolytic cadmium deposition on a selenium plate.  
Trudy Inst. fiz. AN Azerb. SSR 11:11-18 '63. (MIRA 16:4)  
(Cadmium planting)

AKHUNDOV, G.A.; DZHAFAROVA, E.A.; ISKENDER-ZADE, Z.A.

Capacitance of silicon diodes. Izv. AN Azerb. SSR. Ser. fiz.-mat.  
i tekhn. nauk no.5:95-100 '63. (MIRA 17:3)

ACCESSION NR: AP4012601

S/0233/63/000/005/0095/0100

AUTHORS: Akhundov, G.A.; Dzhaferova, E.A.; Iskender-Zade, Z.A.

TITLE: Analysis of the capacitance of silicon diodes

SOURCE: AN AzerbSSR. Izv. Ser. fiz.-matem. i tekhn. nauk, no. 5, 1963, 95-100

TOPIC TAGS: p-n transistors, volume charge, diffusion capacity, frequency dependence of capacitance, silicon, silicon diode, diode, silicon diode capacitance

ABSTRACT: The authors have investigated the dependence of the capacitance of the p-n transistors on the constant reversed bias, on temperature, and on the frequency of the ac-signal. Specimens were prepared from n-type silicon into which aluminum was introduced by thermal diffusion. The measurement of the capacitance was made with the MLE-1 bridge which was fed by the sound generator SG-10. The electron-beam equilibrium indicator EBKI-3 was used. Measurements

Card 1/2

ACCESSION NR: AP4012601

were made at temperatures of melting ice, dry ice, freezing point of ethyl alcohol, and liquid nitrogen. The results of measurements are discussed in terms of changes of the volume charge and concentration of charge carriers (diffusion capacitance). The latter is temperature dependent. The author is grateful to Prof. G.B. Abdullayev for interest in the work. Orig. art. has: 8 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: PH, GE

NO REF SOV: 001

OTHER: 002

Card 2/2

ABDULLAYEV, G.B.; ISKENDERZADE, Z.A.; DZHAFAROVA, E.A.

Reactive properties of silicon diffusion p-n junctions. Radiotekh.  
i elektron. 10 no.4:776-778 Ap '65. (MIRA 18:5)

1. Institut fiziki AN AzerSSR.

**ACCESSION NR:** AP4042524

**S/0109/64/009/007/1281/1286**

**AUTHOR:** Abdullayev, G. B.; Iskender-Zade, Z. A.; Dzhaferova, E. A.; Akhundov, G. A.

**TITLE:** Effect of electrothermal treatment on the properties of silicon diodes

**SOURCE:** Radiotekhnika i elektronika, v. 9, no. 7, 1964, 1281-1286

**TOPIC TAGS:** semiconductor, silicon diode, semiconductor diode, silicon diode electrothermal treatment

**ABSTRACT:** The variation of a reverse current in Si diodes as a result of the prolonged application of a d-c reverse voltage at an elevated temperature was experimentally studied. An Si diode was held for 6 hrs at a reverse voltage of 150 v and a temperature of 448K; its initial reverse current of 2.8 ma dropped to a stable value of 0.9 ma with no variation in the forward current. The effect of temperature on the reverse current was also studied. It was found that the

Card 1/2

**ACCESSION NR: AP4042524**

activation energies of minority-carrier formation were 0.21 and 0.08 ev; after a treatment at 290-375K, recombination centers lying 0.56 ev deep became predominant. "The authors wish to thank B. M. Vul for discussing the work and for valuable comments." Orig. art. has: 7 figures and 1 table.

**ASSOCIATION: Institut fiziki AN AzerbSSR (Institute of Physics, AN AzerbSSR)**

**SUBMITTED: 11May63**

**ATD. PRESS: 3081**

**ENCL: 00**

**SUB CODE: EC**

**NO REF SOV: 004**

**OTHER: 005**

Card

2/2



ACCESSION NR: AP4041486

1 S/0249/64/020/003/0017/0021

AUTHOR: Abdullayev, G. B., Dashaforova, E. A., Iskenderzade, Z. A.

TITLE: The effect of additional charged centers on the capacitance of the p-n transitions in silicon

SOURCE: AN AzerbSSR. Doklady\*, v. 20, no. 3, 1964, 17-21

TOPIC TAGS: semiconductor, silicon, p-n transition, p-n transition capacitance, silicon capacitance, silicon impurity, charged center, dielectric permeability, capacitance voltage dependence, barrier capacitance

ABSTRACT: The authors first point out that the capacitance of the p-n transition at backward voltages greatly exceeding the contact potential difference is determined by the volume charge of the excess ion donors in the n-zone and ion acceptors in the p-zone. Hence, on theoretical grounds, the relationship between the barrier capacitance and voltage is determined by the distribution of electrically active impurities, capacitance being proportional to  $V^{-1/3}$  with a linear distribution of impurities ( $N_D - N_A = ax$ ) and to  $V^{-1/2}$  with a homogeneous distribution of impurities ( $N_D - N_A = \text{constant}$ ), but being highly dependent on voltage if the distribution of impurities is exponential. Experimental data relating capacitance to voltage at various temperatures (17-85C) showed that, following a slow initial decrease with

Card 1/4

ACCESSION NR: AP4041486

ENCLOSURE: 01

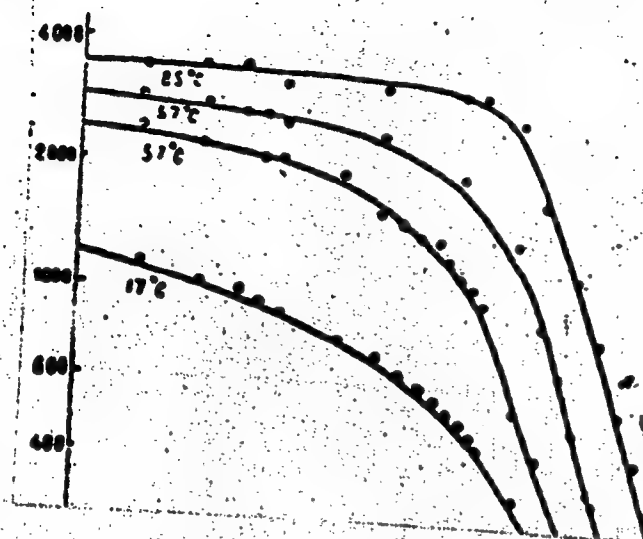


Figure 1

Card 3/4

GRINSHUPUN, A.S.; ISKHAKBAYEV, A.Kh.

Case of brucellar involvement of the thyroid gland. Probl. endok.  
1 gorm. 6 no. 5:119-122 '60. (MIRA 14:1)

(THYROID GLAND--DISEASES) (BRUCELLOSIS)

USSR/General Problems of Pathology - Tumors. Tumor of Man.

U.

Abs Jour : Ref Zhur - Biol., No 21, 1953, 98292

Author : Oks, F.A., ~~Iskhaki, Yu.B.~~

Inst : Stalinabad Medical Institute.

Title : On the Question of Nasal Osteomas and Osteomas of Its Accessory Cavities.

Orig Pub : Tr. Stalinabadsk. med. in-ta, 1956, 18, 79-90

Abstract : Description of 4 cases of osteomas of the nose and paranasal sinuses. Age of patients was not over 30 years. Surgical treatment is recommended. -- A.I. Ashkenazi

Card 1/1

ISKHAKI, Yu. B.: Master Med Sci (diss) -- "Experience in using a preparation of the poison of Vipera lebetina to stop hemorrhage in certain otorhinolaryngological operations". Stalinabad, 1958. 13 pp (Stalinabad State Med Inst im Abuali Ibn-Sino (Avitsenna)), 220 copies (KL, No 12, 1959, 132)

ISKHAKI, Yu.B.

The influence of Vipera lebetina venom on the postoperative course after tonsillectomy. Vest.otorin. 21 no.5:44-47 S-O '59.

(MIRA 13:1)  
1. Iz kafedry bolezney ukha, gorla i nosa (sav. - zaslushennyy deyatel' nauki prof. Ya.L. Kots) i kafedry gosptal'noy terapii (sav. - dots. Z.S. Barkagan) Stalınabadaskogo meditsinskogo instituta.  
(TONSILLECTOMY)  
(VENOMS, pharmacology)

ISKHAKI, Yu.B., kand.med.nauk

How to apply the hemostatic preparation "giurzetoksin." Zdrav. Tadzh.  
7 no. 3:44-45 My-Je '60. (MIRA 14:4)

1. Iz kafedry otolaringologicheskikh bolezney (zav. - zasluzhennyy  
deyatel' nauki prof. Ya.L. Kots) Stalinabadskogo meditsinskogo  
instituta imeni Abuali ibni Sino.  
(HEMOSTATICS) (VENOM—THERAPEUTIC USE)

ISKHAKI, Yu. B.

Injury by means of a match to the middle and inner ear with a fatal outcome. Zdrav. Tadsh. 9 no.2:34-35 Mr-Apr '62.

(MIRA 15:7)

1. Iz kafedry bolezney ukha, gorla i nosa (ispolnyayushchiy obyazannosti zaveduyushchego dotsent L. I. Kal'shteyn) Dushanbinskogo meditsinskogo instituta imeni Abuali ibni Sino.

(EAR--WOUNDS AND INJURIES)



ISKHAKOV, A.I.

Study of immunobiological relations between the mother's body  
and the fetus under clinical and experimental conditions. Med.  
zh. Uzbek. 3:32-36 '63 (MIRA 17:2)

1. Iz Tashkentskogo nauchno-issledovatel'skogo instituta  
vaktsin i syvorotok (direktor - dotsent B.Kh.Magzumov) i labo-  
ratorii immunologii embriogeneza (zav. - doktor med. nauk.  
O.Ye. Vyazov) Instituta eksperimental'noy biologii AN SSSR.

ISKHAKOV, A.I.

Antigenic organic specificity of kidney and heart tissues from  
human embryos. Biul. eksp. biol. i med. 57 no.6:84-87 Je '64.  
(MIRA 18:4)

1. Tashkentskiy nauchno-issledovatel'skiy institut vaktsin i  
syvorotok (dir. - dotsent A.A.Abidov) i laboratoriya immunologii  
embriogeneza (zav. - prof. O.Ye.Vyazov) Instituta eksperimental'-  
noy biologii AMN SSSR (dir. - prof. I.N.Mayskiy), Moskva.

ISKHAKOV, A. I.

Study on the species-specific antigens of the kidney and heart in human embryos. *Biul. eksp. biol. i med.* 57 no.4:108-112 Ap '64. (MIRA 18:3)

1. Tashkentskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok (dir. - kand. med. nauk A.A. Abidov) i laboratoriya immunologii embriogeneza (zav. - prof. O.Ye. Vyazov) Instituta eksperimental'noy biologii (dir. - prof. I.N. Mayskiy) AMN SSSR, Moskva. Submitted April 28, 1963.

ISKHAKOV, A.I.

Stage-specific antigens in human embryonic kidney and heart tissues.  
Biul.eksp.biol.i med. 57 no.5:83-86 My '64.

(MIRA 18:2)

1. Tashkentskiy nauchno-issledovatel'skiy institut vaktsin i  
syvorotok i laboratoriya immunologii embriogeneza (zav. - prof.  
O.Ye.Vyazov) Instituta eksperimental'noy biologii (dir. - prof. I.N.  
Mayskiy) AMN SSSR, Moskva. Submitted June 15, 1963.

36472

S/124/62/000/006/002/023  
D234/D308

10.1240  
AUTHOR: Iskhakov, E. M.

TITLE: Stability of rotation of a rigid body of variable mass with a cavity filled with liquid

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 6, 1962, 14, abstract 6A103 (Tr. Kazansk. aviats. in-ta, 1960, no. 61, 47-57)

TEXT: The author considers a rigid body consisting of two parts: one part has a constant mass and contains a cavity filled partially or completely with an ideal incompressible liquid, the other part has a variable mass; the particles of the variable part move according to a given law along a channel in the constant part of the body and leave the limits of the system through an outlet cross-section. The mass of the liquid contained in the cavity is constant. The author deduces the equations of motions of such a body and investigates the problem of the stability of its motion about a fixed point in the case when the liquid fills completely.

Card 1/2

Stability of rotation ...

S/124/62/000/006/002/023  
D234/D308

an ellipsoidal cavity. Both potential and homogeneous vortex motion of the liquid in the cavity is considered. On the basis of papers by V. V. Rumyantsev and M. Sh. Aminov, the author constructs the Lyapunov function by the method of Chetayev's bundle integral and obtains sufficient conditions of stability for the two cases in question. [Abstracter's note: Complete translation.]

Card 2/2

ISKHAKOV, G.

Expansion of the initiative of Ural Mountain Region workers. NTO  
5 no.4:48-49 Ap '63. (MIRA 16:3)

1. Predsedatel' sektsa ekonomiki Sverdlovskogo oblastnogo  
pravleniya Nauchno-tehnicheskikh obshchestv energeticheskoy  
promyshlennosti.

(Sverdlovsk Province—Research, Industrial)

*ISKHAKOV, G. I.*

9.3120

82171  
S/048/60/024/06/16/017  
B019/B067

AUTHORS: Ayukhanov, A. Kh., Iskhakov, G. I.

TITLE: Use of Mass Spectrometers of the Dynamic Type to Investigate Secondary Processes

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 6, pp. 715-722

TEXT: This is the reproduction of a lecture delivered at the 9th All-Union Conference on Cathode Electronics from October 21 to 28, 1959 in Moscow. In the introduction to the present paper, the authors demonstrate that new methods must be developed to study secondary emission of contaminated surfaces which make it possible to study the electron component and the component of negative ions of secondary emission. The investigation of secondary emission by means of ordinary magnetic mass spectrometers is impossible, and the authors tried to study secondary emission of surfaces of different states in their bombardment with ions. This was done by using a magnetic mass spectrometer in which the energies of the ions were modulated and multiplier was used to record the ions. The device with which

Card 1/2

*ch*



ISKHAKOV, G.Kh.; TROITSKIY, D.P., otv.red.; DUKHNEVICH, V.I., otv.red.

[Some economic aspects of metallurgical furnace repair]  
Nekotorye voprosy ekonomiki remonta metallurgicheskikh pechai.  
Sverdlovsk, Akad.nauk SSSR, 1958. 70 p. (MIRA 12:8)  
(Metallurgical furnaces--Maintenance and repair)

DUKHNEVICH, Vadim Ignat'yevich; ISKHAKOV, Ganim Khanipovich; PANFILOV, Mikhail Ivanovich; REVBETSOV, Vasilii Petrovich; GAL'PERIN, A.S., inzh., retsenzent; VESKLOV, N.G., dotsent, kand.ekonom.nauk, red.; SYRCHINA, M.M., red.isd-va; MATLYUK, R.M., tekhn.red.

[Economic aspects and the organization of open-hearth furnace repairs] Voprosy ekonomiki i organizatsii remontov martenovskikh pechey. Sverdlovsk, Gos.nauchno-tekhn.isd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1960. 95 p.

(MIRA 13:9)

(Open-hearth furnaces--Maintenance and repair)

DVORKIND, M.M.; ISKHAKOV, G.Kh.; VYDRINA, Zh.A.; REDIN, N.S.;  
BUSHUYEVA, T.N.

Use of oxygen and compressed air and the durability of  
refractory brickwork. Metallurg 5 no. 12:15-17 D '60.  
(MIRA 13:11)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat i Vostochnyy  
institut ogneporov.

(Open-hearth furnaces--Maintenance and repair)

(Oxygen--Industrial applications)

NIKULIN, Vadim Mikhaylovich; ISKHAKOV, Galim Khanipovich; AMEL'CHENKO, M.A., retsenzent; VESELOV, N.G., red.; KRYZHOVA, M.L., red.izd-va; MATLYUK, R.M., tekhn.red.

[Labor productivity growth potentials in refractory materials production] Rezervy rosta proizvoditel'nosti truda v ognepornom proizvodstve. Sverdlovsk, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1961. 85 p.

(MIRA 14:6)

(Refractories industry)

ISKHAROV, Galim Khanipovich; REDIN, Nikolay Sergeyevich; KONEVKIN,  
I.I., ~~red.~~; DUKHNEVICH, V.I., red.; TSYMBALIST,  
N.M., red.izd-va; KOROL', V.P., tekhn. red.

[Efficient time length for the banking of open-hearth  
furnaces for repair purposes] Ratsional'nye sroki ostanovki  
martenovskikh pechei na remonty. Moskva, Metallurgizdat,  
1963. 60 p. (MIRA 16:7)  
(Open-hearth furnaces--Maintenance and repair)

ISKHAKOV, G.Kh., inzh.; YERMOLAYEV, V.M.

Conference on improvement of efficiency in the electric  
equipment industry in the Urals. Vest. elektroprom. 34  
no.2:76-77 F '63. (MIRA 16:2)  
(Electric equipment industry—Congresses)

ISKHAKOV, Kh.A.

Important condition for improving labor productivity. Stroi.  
truboprov. 8 no.12:35 D '63: (MIRA 17:4)

1. Trest Vostoknsfteprovodstroy, Ufa.

Iskhakov, Kh. A.

68-10-2/22

AUTHOR: Iskhakov, Kh. A.

TITLE: Thermographic Investigation of Coals and Coal Blends.  
(Termograficheskoye issledovaniye ugley i ugol'nykh smesey)

PERIODICAL: Koks i Khimiya, 1957, Nr 10, pp.6-8 (USSR)

ABSTRACT: Claims of various authors as to the applicability of the differential thermal analysis or the evaluation of the coking quality of coals are criticised as not sufficiently substantiated. In order to study how thermal effects taking place during pyrogenetic decomposition of solid fuels appear on differential thermal curves, a number of experiments were carried out in which differential thermal analysis curves of birch and pine wood, Barzarsk coal, boghead coal and vitrite and durite from the Kizlevsk coal were obtained (Fig.4). The results obtained indicate that with the present state of differential thermal analysis, it is difficult to judge the nature of the thermal effects of pyrogenetic decomposition of coals from the thermal curves obtained. There are 4 figures and 8 references, including 7 Slavic.

ASSOCIATION: Tomsk Polytechnical Institute (Tomskiy politekhnicheskii institut)

AVAILABLE: Library of Congress.  
Card 1/1



~~ISKHAKOV, Kh. A.~~  
ISKHAKOV, Kh. A.

Method for the thermographic investigation of wood. Gidroliz. i lesokhim.  
prom. 10 no.8:18-19 '57. (MIRA 10:12)

1. Tomskiy politekhnicheskii institut.  
(Wood--Analysis) (Thermal analysis)

ISKHAKOV, Kh.A., inzh. (Ufa).

Integrated crews in the construction of underground pipelines. Stroi.  
pred. neft. prom. 3 no.4:26-28 Ap '58. (MIRA 11:5)  
(Pipelines)

68-58-5-~~4~~/25

AUTHORS: Gebler, I.V., Doctor of Technical Sciences and  
Iskhakov, Kh.A.

TITLE: Some Special Features of Decomposition of the Kizelovsk  
Coals Detected by Differential Thermal Analysis  
(Osobennosti razlozheniya kizelovskikh ugley, obnaruzhivayem-  
yye differentsial'no-termicheskimi analizom)

PERIODICAL: Koks i Khimiya, 1958, Nr 5, pp 16 - 17 (USSR).

ABSTRACT: Differential thermal analysis of samples of the above  
coals indicated that an increase in endothermic effect of dull  
specimens is due to internal admixtures (clay, pyrite).  
There are 2 figures, 1 table and 3 Soviet references.

ASSOCIATION: Tomskiy politekhnicheskiy institut  
(Tomsk Polytechnical Institute)

Card 1/1

ISKHAKOV, Kh. A.: Master Tech Sci (diss) -- "Thermographic investigation of solid fuels". Tomsk, 1959. 12 pp (Min Higher Educ USSR, Tomsk Order of Labor Red Banner Polytech Inst im S. M. Kirov), 150 copies (KL, No 12, 1959, 129)



ISKHAKOV, Kh. A.

Cand Chem Sci - (diss) "Use of thermography in studying solid fuel." Alma-Ata, 1961. 15 pp; (Inst of Chemical Sciences of the Academy of Sciences Kazakh SSR); 160 copies; price not given; (KL, 6-61 sup, 198)

ISKHAKOV, K.F., kandidat tekhnicheskikh nauk.

Electrical safety on livestock farms. Trudy MIMSKEH 3:193-212 '56.  
(Electric engineering--Safety measures) (MIRA 10:8)

STARIKOV, V.V.; ISKHAKOV, K.L.

Semiconductor device for measuring the consumption and speed  
of air. Trudy Inst. gor. dela AN Kazakh. SSR 11:174-178 '63.  
(MIRA 16:8)

(Aerodynamic measurements)



VOLOKHNOV, M.I., kand. tekhn. nauk; ISCHAKOV, K.L., inzh.; FRIEDCHENKO, V.F.;  
STARIKOV, V.V.

Purification of mine air of dust with electric filters. Ber'ba 3  
sil. 6:158-163 '64 (MIRA 18:2)

1. Institut gornogo dela AN KazSSR.

STARIKOV, V.V.; ISKHAKOV, K.L.

New method of investigating the electrical properties of aerosols.  
Trudy Inst.gor.dela AN Kazakh.SSR 15:97-106 '64.

(MIRA 18:2)

BIXBOV, K.S., pomoshchnik buril'shchika; ISKHAKOV, K.S., pomoshchnik  
buril'shchika; SULEYMANOV, A.T., master po dobyche nef'ti

Shortcomings in training engineers in safety techniques. Bezop.  
truda v prom. 2 no.10:34 0 '58. (MIRA 11:11)

1. Kontora bureniya No.1 tresta Tuzmasabruneft' (for Bixbov, Iskhakov).
2. Promysl No.3 Naftepromyslovogo upravleniya Oktyabr'skneft' (for  
Suleymanov).

(Safety education, Industrial)

ISKHAKOV, Kh.Sh.; KEELER, E.K.

Solid phase reactions in the system  $\text{SrO} - \text{TiO}_2 - \text{ZrO}_2$ .  
Zhur. neorg. khim. 7 no.8:1946-1957 Ag '62. (MIRA 16:6)

1. Institut khimii silikatov AN SSSR.  
(Strontium oxide) (Titanium oxide)  
(Zirconium oxide)

ISKHAKOV, Kh.Sh.; KELLER, E.K.

Conditions for the formation and the electrical properties  
of solid solutions of  $\text{SrTiO}_3$  -  $\text{SrZrO}_3$ . Zhur. neorg. khim. 7  
no.8:1958-1963 Ag 162. (MIRA 16:6)

1. Institut khimii silikatov AN SSSR.  
(Strontium titanate—Electric properties)  
(Strontium zirconate—Electric properties)  
(Solutions, Solid)

L 10512-61

ENP(q)/ENT(m)/BDS--AFFTC/ASD--JD

8/0080/63/036/003/0480/0489

ACCESSION NR: AP3000638

AUTHOR: Ishkhakov, Kh. Sh.; Keler, E. K.

TITLE: The effect of borides on the formation and the physicochemical properties of strontium titanate--strontium zirconate solid solutions

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 3, 1963, 480-489

TOPIC TAGS: boric anhydride, solid solution, strontium titanate, strontium zirconate, strontium boride, ceramic property, mineralizer

ABSTRACT: The effect of  $B_2O_3$  on the formation and the physicochemical properties of  $SrTiO_3$ -- $SrZrO_3$  solid solutions, which exhibit electrical properties making them suitable for use in the radio engineering industry, have been studied. To the mixtures  $SrCO_3 + ZrO_2$  (1:1),  $SrCO_3 + TiO_2$  (1:1), and  $SrCO_3 + TiO_2 + ZrO_2$  (2:1:1), and powdered  $SrZrO_3$  and  $SrTiO_3$  was added 3, 5, or 10 mol%  $B_2O_3$  (as an equivalent amount of  $H_3BO_3$ ). The resulting mixtures, after compacting at 800 kg/cm<sup>2</sup> and firing at 600 to 1450C, were studied by complex thermal, x-ray, and chemical analysis. Chemical analysis showed that in the presence of  $B_2O_3$  there is a drop in the temperatures of formation and sintering

Card 1/3

L 10512-63

ACCESSION NR: AP3000638

and in the yield of  $\text{SrZrO}_3$ ,  $\text{SrTiO}_3$ , and the  $\text{SrTiO}_3$ -- $\text{SrZrO}_3$  solid solution from  $\text{SrCO}_3 + \text{ZrO}_2$ ,  $\text{SrCO}_3 + \text{TiO}_2$ , and  $\text{SrCO}_3 + \text{TiO}_2 + \text{ZrO}_2$ , respectively. The yield drop was attributed to the fact that part of the strontium oxide forms strontium borates, while part of the  $\text{TiO}_2$  and  $\text{ZrO}_2$  remains unreacted. Hence, to improve the yield and the ceramic properties of  $\text{SrZrO}_3$ ,  $\text{SrTiO}_3$ , and the  $\text{SrTiO}_3$ -- $\text{SrZrO}_3$  solid solution, the mineralizer should be incorporated as presynthesized strontium borate rather than as  $\text{B}_2\text{O}_3$ . Study of the physicochemical properties indicated that by use of 2  $\text{SrO} \cdot \text{B}_2\text{O}_3$  as the mineralizer, a mechanically strong body with a porosity close to zero can be obtained for  $\text{SrZrO}_3$ ,  $\text{SrTiO}_3$ , and the  $\text{SrTiO}_3$ -- $\text{SrZrO}_3$  solid solution. Thus, a body prepared from 60 mol%  $\text{SrTiO}_3$ , 40 mol%  $\text{SrZrO}_3$  + 3 wt% 2  $\text{SrO} \cdot \text{B}_2\text{O}_3$  withstands three 20-1200C thermal cycles and exhibits a shrinkage of 20.1%, a water absorption of 0.02%, an apparent porosity of 0.15%, an apparent density of 5.066 g/cm<sup>3</sup>, a linear expansion coefficient at 20--1200C of  $9.5 \times 10^{-6}$ , a bending strength of 823 kg/cm<sup>2</sup>, and a compressive strength of 3067 kg/cm<sup>2</sup>. Orig. art. has: 6 figures and two tables.

ASSOCIATION: Institut khimii silikatov imeni I. V. Grebenshchikova AN SSSR  
(Institute of the Chemistry of Silicates, AN SSSR)

Card 2/3

ISKHAKOV, N.I.; VERESHCHAGIN, A.G.

Lipids of vegetative and generative organs of cottonseed plant *Gossypium hirsutum* L. *Biokhimiia* 29 no.3:487-498 My-Je '64. (MIRA 18:4)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva AN SSSR, Moskva.  
Postoyannyi adres N.I.Iskhakova: Institut khimii polimerov AN Uzbekskoy SSR, Tashkent.



ISKHAKOV, N.I.; ISMAILOV, A.I.; SADYKOV, A.S.; YABUKOV, A.M.

Influence of certain factors on the oleaginousness and fatty acid  
content of cottonseeds. Uzb.khim.zhur. 7 no.3:52-56 '63.  
(MIRA 16:9)

1. Institut khimii polimerov AN UzSSR.  
(Cottonseed oil) (Acids, Fatty)

L 13551-63

RM/WW

EPR/EMP(j)/EPF(c)/EWT(m)/BDS AFPTC/ASD Ps-L/Pc-L/Pr-L

ACCESSION NR: AP3000701

8/0190/63/005/005/0724/0728

74  
72

AUTHOR: Myagchenkov, V. A.; Kuznetsov, Ya. V.; Iskhakov, O. A.; Iushkina, V. M.

TITLE: Fractionation of methylmethacrylate-methacrylic acid copolymer and the properties of the fractions

SOURCE: Vyssokomolekulyarnyye soyedineniya, v. 5, no. 5, 1963, 724-728

TOPIC TAGS: fractionation, copolymers, methacrylate, methacrylic acid, macromolecules, Li

ABSTRACT: The purpose of the present investigation consisted in a study of the physical and chemical characteristics produced in copolymers of methylmethacrylate-methacrylic acid by varying its composition. To this end, a copolymer was produced by heating for 40 hours at 45C a mixture of 9.75% methacrylic acid, 90.2% methylmethacrylate, and 0.05% lithium methacrylate with the addition of an initiator. The obtained copolymer was dissolved in acetone, from which fractions were precipitated by a 2:1 mixture of hexane-dichloroethane. These were dried, and their properties studied by viscosimetry and spectroscopy. The examination of the fractions of the copolymer gave an identical methacrylic acid content of 7.4%, the 92.6% balance being accepted as methylmethacrylate. The constants K and a of the Staudiger-Mark equation for a copolymer of the given composition in acetone were determined. It

Card 1/2

L 13554-63

ACCESSION NR: AP3000701

2

was demonstrated that the addition of lithium methacrylate to the polymerizing mixture caused the reaction to proceed with the formation of a tertiary copolymer. Orig. art. has: 9 formulas, 5 figures, and 1 table.

ASSOCIATION: Kazanskiy khimiko-tehnologicheskii institut im. S. M. Kirova (Kazan' Institute of Chemical Engineering)

SUBMITTED: 05Nov61

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SUB CODE: .CH

NO REF SOV: 005

OTHER: 001

Card 2/2

KOZLOV, Vladimir Ivanovich; SON DIN FA [Son Chin-hw]; ISKHAKOV,  
Rakhmatulla; KOCHEROV, V.A., red.; ABBASOV, T., tekhn. red.

[Striving for a diversified development of agriculture]V  
bor'be za kompleksnoe razvitie khoziaistva. Tashkent, Gos-  
izdat UzSSR, 1961. 23 p. (MIRA 15:10)  
(Uzbekistan--Agriculture)

ISKHAKOV, R.B.

PLOKHOV, V.N., inzhener; ANDREYEV, Ye.I.; ISKHAKOV, R.B., inzhener.

Rolling of stainless steel with high area reduction. Stal' 15  
no.11:1045-1047 '55. (MLRA 9:1)

1. Beloretskiy metallurgicheskiy zavod.  
(Rolling (Metal work)) (Steel, stainless)

ISKHAKOV, R. M.

USSR/Mining - Open Pits

Dec 52

"Determination of the Safe Width of a Protecting Berm," R. M. Iskhakov, Cand Tech Sci

"Gor Zhur" No 12, pp 14-16

Attempts to establish theoretically substantiated width of protecting berm depending on height of protecting escarpment, taking into consideration elastic properties of rocks. Considers protecting berm as one of basic elements of open pits. Correct determination of its width promotes

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safety and effectiveness of mining operations.  
Develops calculation formula and gives its graphical representation.

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ISKHAKOV, R.M., kand.tekhn.nauk, dotsent

Determining the depth of an open pit. Trudy NPI 49:171-183 '59  
(MIRA 14:3)

1. Kafedra razrabotki rudnykh i nerudnykh mestorozhdeniy Novo-  
cherkasskogo politekhnicheskogo instituta.  
(Strip mining)

MAKHIN, P.A., prof., tekhn.nauk; ISKHAKOV, R.M., kand.tekhn.nauk

Training of specialists for open-pit mining. Gor.zhur. no.6:20-21  
Je '60. (MIRA 14:2)

1. Novocherkasskiy politekhnicheskiy institut.  
(Mining engineering—Study and teaching)



ISKHAKOV, Sh.; USMANOV, Kh.U., BUKINA, V.K.

Treating cotton fibers with organic solvents to increase the friction force between separate fibers. Izv.vys.ucheb.zav.; tekhn.tekst. prom. no.3:31-33 '60.  
(MIRA 13:7)

1. Tashkentskiy tekstil'nyy institut i Institut khimii polimerov AN UzSSR.  
(Cotton yarn) (Solvents)

SADYKOV, R. A.; ISKHAKOV, S. A.

Results of the Fifth Conference of Young Geologists of the  
Republics of Central Asia and Kazakhstan. Uzb. geol. shur. 6  
no.5:86-87 '62. (MIRA 15:10)

1. Institut geologii AN Uzbekskoy SSR.

(Kazakhstan—Geology)  
(Soviet Central Asia—Geology)

ISKHAKOV, S.I.

Health education in the Chinese People's Republic. Sov.zdrav. 17  
no.5:54-58 My '58 (MIRA 11:5)  
(PUBLIC HEALTH,educ.  
in China (Rus))

ISKHAKOV, S.I.

System of health education in the school in the prophylaxis of  
dermatomycosis. Zdrav.Tadsh. 6 no.3:34-37 My-Je '59.  
(MIRA 12:11)

1. Glavnyy vrach Respublikanskogo doma sanitarnogo prosveshcheniya.  
(TAJIKISTAN--HEALTH EDUCATION)  
(DERMATOMYCOSIS)